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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,292	01/30/2002	James L. Hartley	0942.285000H/RWE/BJD	3058

26111 7590 04/09/2003

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EXAMINER
SANDALS, WILLIAM O

ART UNIT	PAPER NUMBER
1636	

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
10/058,292	Hartley et al.
Examiner	**Art Unit**
William Sandals	1636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Dec 16, 2002 .

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 35-225 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 35-225 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on Dec 16, 2002 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Status of the Claims

1. Claims 35-225 are pending. Claims 158-225 are newly added.

2. Amendments to the claims in Paper No. 10, filed December 16, 2002 have overcome the rejection of claims 35, 36, 40, 41, 57-59, 66-68, 70, 71 and 74-77 under 35 USC 102, over US 5,159,062 (Knapp et al.) in the previous office action, and the rejection is withdrawn.

3. Amendments to the claims in Paper No. 10, have overcome the rejection of claims 35-43 47-50, 54-59, 68-70 and 74-77 under 35 USC 102, over US 5,981,177 (Demirjian et al.) in the previous office action, and the rejection is withdrawn.

4. Amendments to the claims in Paper No. 10, have overcome the rejection of claims 151-157 under 35 USC 102, over WO 93/19172 (Johnson et al.) in the previous office action, and the rejection is withdrawn.

5. Amendments to the claims in Paper No. 10, have overcome the rejection of claims 35-157 under 35 USC 103(a), over US 5,981,177 (Demirjian et al.) in view of WO 93/19172 (Johnson et al.) and further in view of US 5,527,695 (Hodges et al.) in the previous office action, and the rejection is withdrawn.

6. Arguments filed in Paper No. 10 regarding the rejection of claims 73-83, 86-89, 93-98, 102-119, 122-125, 129-134 and 138-150 as anticipated under 35 USC 102, over US 5,981,177

(Demirjian et al.) in the previous office action, have been fully considered but they are not persuasive. The response to the arguments is contained in the rejection repeated below.

7. Arguments filed in Paper No. 10 regarding the rejection of claims 35, 36, 40-71, 74 and 77 under 35 USC 102, over WO 93/19172 (Johnson et al.) in the previous office action, have been fully considered but they are not persuasive. The response to the arguments is contained in the rejection repeated below.

8. Claims 69, 141, 211 and 212 stand rejected under 35 USC 112, second paragraph (New grounds of rejection).

9. Claims 35, 40-46, 59-61, 66-68, 70, 71, 159, 163-167, 170, 171 and 176-179 stand rejected under 35 U.S.C. 102(b) as being anticipated by EP 542,466 (Peakman et al.) (New grounds of rejection).

10. Claims 35-71, 74-106, 109-142 and 145-157 stand rejected as obvious under 35 U.S.C. 103(a) as being unpatentable over WO 93/19172 (Johnson et al.) in view of US 5,981,177 (Demirjian et al.) and EP 542,466 (Peakman et al.) (New grounds of rejection).

Drawings

11. The drawings as submitted on December 10, 2002, have been approved by the draftsman.

Response to Arguments

12. Rejections of the claims are repeated below, and the responses to the arguments follow:

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 35, 36, 40-71, 74, 77, 158, 159 and 163-186 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 93/19172 (Johnson et al., of record).

Johnson et al. teaches (see especially pages 19, 26-34, 46, 47, 49 and 52) a method as described in the instant base claims 35 and 159, of producing a nucleic acid molecule by providing a first nucleic acid molecule comprising a first portion of a gene and a recombination site, a second nucleic acid molecule comprising a second portion of a gene and a recombination site, mixing *in vitro,* the first and second nucleic acids with a recombination protein to recombine the first and second nucleic acids to form a third nucleic acid thereby forming an operably linked, functional gene from the first and second portions of the gene. Johnson et al. teach at pages 26-34 the recombination of immunoglobulin genes in a phage which expresses the recombined immunoglobulin genes by joining the recombined immunoglobulin genes with a promoter which causes the expression of the recombined immunoglobulin genes on the surface of the phage, which corresponds to instant claims 40, 81, 155, 156 and 196. The gene may encode a selectable marker or a heterodimeric product as taught by Johnson at pages 32 or 47, for instance. The first or second portion of the gene may be fragments of the gene and may comprise a promoter and

may be PCR products as taught by Johnson et al. at pages 32 and 52, for instance. The first and second portions of the gene may be located adjacent to the recombination site, and the first or second nucleic acid molecule may comprise a cloning site as taught by Johnson et al. at pages 19, 26-27, 31-32 and 46 for instance. The first, second or third nucleic acid may be an expression vector, and may be linear. The functional gene may be expressed in a host cell, and may be selected. The host cell may be *E. coli* (see Johnson et al. at pages 26-34). The recombination sites may be loxP sites or att sites. The recombination protein may Cre, Int, IHF, Xis, FLP, gamma-delta, Tn3, Hin, Gin or Cin (see Johnson et al. at pages 26-34). Johnson et al. teach at page 22, bottom bridging to page 23, the additional recombination sites as recited in instant claims 49-56. Johnson et al. teach at page 46, lines 8-15, that vector FdDOG-1 is derived from pUC19, which has a cloning site as claimed in instant claim 59.

Response to Arguments

15. Arguments set forth in Paper No. 10, page 23 assert that Johnson et al do not teach each and every limitation of the claims, and that no specific teachings are present on the recombination reaction *in vitro* and are thus not enabled.

As stated in the rejection above, each and every limitation of the claims are taught by Johnson et al. Johnson et al. teach at page 21, lines 9-10 and at claim 4 that the reaction may be performed *in vitro*. Therefore, the teachings of Johnson et al. do teach the reaction may be performed *in vitro*, and thus, meet all of the limitations of the claims.

No reasoned statement or evidence has been presented to support the allegation of lack of enablement. Therefore, the argument is not found convincing.

16. Amendments to the claims in Paper No. 10, have overcome the rejection of claims 151-157 under 35 USC 102, over WO 93/19172 (Johnson et al.) in the previous office action, and the rejection is withdrawn.

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

17. Claims 78-83, 86-89, 93-98, 102-119, 122-125, 129-134, 138-150, 159-165, 168-170 and 172-186 are rejected under 35 U.S.C. 102(e) as being anticipated by US 5,981,177 (Demirjian et al.).

Demirjian et al. teach (see especially the summary and columns 9-10 and example 5) the method of base claims 78, 115 and 159 for producing a nucleic acid molecule by providing a first

nucleic acid molecule comprising a first portion of a gene and a recombination site, a second nucleic acid molecule comprising a second portion of a gene and a recombination site, mixing the first and second nucleic acids with a recombination protein to recombine the first and second nucleic acids to form a third nucleic acid thereby forming an operably linked, functional gene from the first and second portions of the gene (see Demirjian et al. at columns 9-10). The gene may encode a selectable antibiotic marker or a structural gene (instant claim 163). The first or second portion of the gene may be fragments of the gene and may comprise a promoter and may be PCR products (instant claims 78, 105 and 141)(see Demirjian et al., col. 9, lines 39-60 and column 16, lines 51-68). Instant claims 96-98 recite that the first and second portions of the gene may be located adjacent to the recombination site and the first or second nucleic acid molecule may comprise a cloning site (see Demirjian et al. example 5). The first, second or third nucleic acid may be an expression vector, and may be linear. The functional gene may be expressed in a host cell, and may be selected. The host cell may be *E. coli*. The recombination sites may be att sites (see Demirjian et al., col. 8 and Table 1).

Response to Arguments

18. Arguments set forth in Paper No. 10, page 25 assert that Demirjian et al. do not teach each and every limitation of the claims.

There is no specific description of the missing limitation. The rejection above, makes it clear that Demirjian et al. teach the claimed invention. The assertion is therefore, not found convincing.

New Grounds of Rejection/Objection

Claim Objections

19. Claim 219 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 219 and claim 218 depend from claim 216. Claim 219 duplicates claim 218. As a result, claim 219 does not further limit claim 216.

Claim Rejections - 35 USC § 112

20.The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

21. Claims 69, 141, 211 and 212 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

22. Claims 69 and 141 each contain the trademark/trade name PCR. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product.

A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe the polymerase chain reaction and, accordingly, the identification/description is indefinite.

23. Claim 211 (and therefore, dependent claim 212) recites the limitation "said nucleic acid molecule" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

24. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

25. Claims 35, 40-46, 59-61, 66-68, 70, 71, 159, 163-167, 170, 171 and 176-179 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 542,466 (Peakman et al.).

Peakman et al. teach at page 4, lines 4-30, page 6, lines 41-51 and page 7, example 3, a method of producing a nucleic acid molecule by providing a first nucleic acid molecule comprising a first portion of a gene and a recombination site, a second nucleic acid molecule comprising a second portion of a gene and a recombination site, mixing *in vitro,* the first and

second nucleic acids with a recombination protein to recombine the first and second nucleic acids to form a third nucleic acid thereby forming an operably linked, functional gene from the first and second portions of the gene (see Peakman et al. at page 4, lines 4-30, page 6, lines 41-51 and page 7, example 3). The gene may encode a selectable marker or a heterodimeric product (see Peakman et al. at page 4, lines 4-30). The first or second portion of the gene may be fragments of the gene and may comprise a promoter and may be PCR products. The first or second portions of the gene may comprise a cloning site (see example 3, and the figures). The first, second or third nucleic acid may be an expression vector, and may be linear. The functional gene may be expressed in a host cell, and may be selected. The host cell may be *E. coli*. The recombination sites are loxP sites. The recombination protein is Cre.

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

27. Claims 35-225 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/19172 (Johnson et al.) in view of US 5,981,177 (Demirjian et al.) and EP 542,466 (Peakman et al.)

The claims are drawn to a method of producing a nucleic acid molecule by providing a first nucleic acid molecule comprising a first portion of a gene and a recombination site, a second nucleic acid molecule comprising a second portion of a gene and a recombination site, mixing *in vitro*, the first and second nucleic acids with a recombination protein to recombine the first and second nucleic acids to form a third nucleic acid thereby forming an operably linked, functional gene from the first and second portions of the gene. The gene may encode a selectable antibiotic marker or a heterodimeric product. The first or second portion of the gene may be fragments of the gene and may comprise a promoter and may be PCR products. The first and second portions of the gene may be located adjacent to the gene and the first or second nucleic acid molecule may comprise a cloning site. The first, second or third nucleic acid may be an expression vector, and may be linear. The functional gene may be expressed in a host cell, and may be selected. The host cell may be *E. coli*. The recombination sites may be loxP sites or att sites. The recombination protein may Cre, Int, IHF, Xis, FLP, gamma-delta, Tn3, Hin, Gin or Cin.

Johnson et al. teaches (see especially pages 19, 26-34, 46, 47, 49 and 52) a method as described in the instant base claims 35 and 159, of producing a nucleic acid molecule by providing a first nucleic acid molecule comprising a first portion of a gene and a recombination site, a second nucleic acid molecule comprising a second portion of a gene and a recombination site, mixing *in vitro,* the first and second nucleic acids with a recombination protein to recombine the first and second nucleic acids to form a third nucleic acid thereby forming an operably linked, functional gene from the first and second portions of the gene. Johnson et al. teach at pages 26-

34 the recombination of immunoglobulin genes in a phage which expresses the recombined immunoglobulin genes by joining the recombined immunoglobulin genes with a promoter which causes the expression of the recombined immunoglobulin genes on the surface of the phage, which corresponds to instant claims 40, 81, 155, 156 and 196. The gene may encode a selectable marker or a heterodimeric product as taught by Johnson at pages 32 or 47, for instance. The first or second portion of the gene may be fragments of the gene and may comprise a promoter and may be PCR products as taught by Johnson et al. at pages 32 and 52, for instance. The first and second portions of the gene may be located adjacent to the recombination site, and the first or second nucleic acid molecule may comprise a cloning site as taught by Johnson et al. at pages 19, 26-27, 31-32 and 46 for instance. The first, second or third nucleic acid may be an expression vector, and may be linear. The functional gene may be expressed in a host cell, and may be selected. The host cell may be *E. coli* (see Johnson et al. at pages 26-34). The recombination sites may be loxP sites or att sites. The recombination protein may Cre, Int, IHF, Xis, FLP, gamma-delta, Tn3, Hin, Gin or Cin (see Johnson et al. at pages 26-34). Johnson et al. teach at page 22, bottom bridging to page 23, the additional recombination sites as recited in instant claims 49-56. Johnson et al. teach at page 46, lines 8-15, that vector FdDOG-1 is derived from pUC19, which has a cloning site as claimed in instant claim 59.

Johnson et al. did not teach that the gene may be an antibiotic resistance gene, nor selecting against the host cell transfected with the nucleic acid molecules in various host cells.

Demirjian et al. teach (see especially the summary and columns 9-10 and example 5) a method for producing a nucleic acid molecule by providing a first nucleic acid molecule comprising a first portion of a gene and a recombination site, a second nucleic acid molecule comprising a second portion of a gene and a recombination site, mixing the first and second nucleic acids with a recombination protein to recombine the first and second nucleic acids to form a third nucleic acid thereby forming an operably linked, functional gene from the first and second portions of the gene as recited in base claims 78, 115 and 159. Demirjian et al. especially teaches the use of an antibiotic resistance gene in the method of site specific recombination (see Demirjian et al. at columns 9-10). The gene may encode a selectable antibiotic marker or a structural gene (instant claim 163). The first or second portion of the gene may be fragments of the gene and may comprise a promoter and may be PCR products (instant claims 78, 105 and 141)(see Demirjian et al., col. 9, lines 39-60 and column 16, lines 51-68). Instant claims 96-98 recite that the first and second portions of the gene may be located adjacent to the recombination site and the first or second nucleic acid molecule may comprise a cloning site (see Demirjian et al. example 5). The first, second or third nucleic acid may be an expression vector, and may be linear. The functional gene may be expressed in a host cell, and may be selected. The host cell may be *E. coli*. The recombination sites may be att sites (see Demirjian et al., col. 8 and Table 1).

Peakman et al. teach at page 4, lines 4-30, page 6, lines 41-51 and page 7, example 3, a method of producing a nucleic acid molecule by providing a first nucleic acid molecule

comprising a first portion of a gene and a recombination site, a second nucleic acid molecule comprising a second portion of a gene and a recombination site, mixing *in vitro,* the first and second nucleic acids with a recombination protein to recombine the first and second nucleic acids to form a third nucleic acid thereby forming an operably linked, functional gene from the first and second portions of the gene, especially the application of a method of site specific recombination in eukaryotic cells for a broad range of desired genes in the method (see Peakman et al. at page 4, lines 4-30, page 6, lines 41-51 and page 7, example 3). The gene may encode a selectable marker or a heterodimeric product (see Peakman et al. at page 4, lines 4-30). The first or second portion of the gene may be fragments of the gene and may comprise a promoter and may be PCR products. The first or second portions of the gene may comprise a cloning site (see example 3, and the figures). The first, second or third nucleic acid may be an expression vector, and may be linear. The functional gene may be expressed in a host cell, and may be selected. The host cell may be *E. coli.* The recombination sites are loxP sites. The recombination protein is Cre.

One of ordinary skill in the art would have been motivated to modify the method of the use of a recombination protein to recombine a first and second portion of a gene to produce a functional gene by operably linking the first and second portions of the gene of Johnson et al. with the method of use of a recombination protein to recombine a first and second portion of a gene to produce a functional gene by operably linking the first and second portions of the antibiotic gene of Demirjian et al. and the method of use of a recombination protein to

recombine a first and second portion of a gene to produce a functional gene by operably linking the first and second portions of the gene Peakman et al. because Demirjian et al. teach the use of an antibiotic resistance gene in the method for the expected benefit that the use of an antibiotic gene in the method facilitates the rapid identification of antibiotic genes with new activities and functionalities, and because Peakman et al. teach the desirable and beneficial application of the method in eukaryotic cells for the expected benefit of optimization of expression levels of foreign proteins in the eukaryotic cells. Further, a person of ordinary skill in the art would have had a reasonable expectation of success in the producing the instant claimed invention given the teachings of Johnson et al., Demirjian et al. and Peakman et al. that demonstrates a method of the use of a recombination protein to recombine a first and second portion of a gene to produce a functional gene by operably linking the first and second portions of the gene.

Conclusion

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

29. Certain papers related to this application are ***welcomed*** to be submitted to Art Unit 1636 by facsimile transmission. The FAX numbers are (703) 308-4242 and 305-3014. The faxing of

such papers must conform with the notices published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 CFR 1.6(d)). NOTE: If applicant *does* submit a paper by FAX, the original copy should be retained by the applicant or applicant's representative, and the FAX receipt from your FAX machine is proof of delivery. NO DUPLICATE COPIES SHOULD BE SUBMITTED, so as to avoid the processing of duplicate papers in the Office.

Any inquiry concerning this communication or earlier communications should be directed to Dr. William Sandals whose telephone number is (703) 305-1982. The examiner normally can be reached Monday through Thursday from 8:30 AM to 7:00 PM, EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel, Ph.D. can be reached at (703) 305-1998.

Any inquiry of a general nature or relating to the status of this application should be directed to the Tech Center customer service center at telephone number (703) 308-0198.

William Sandals, Ph.D.
Examiner
March 17, 2003

REMY YUCEL, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600